



User Manual



HD
Digital Video
Broadcasting

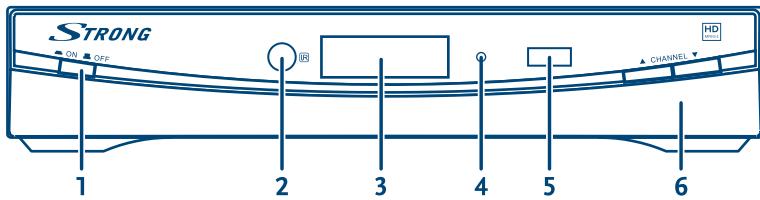


Fig. 1

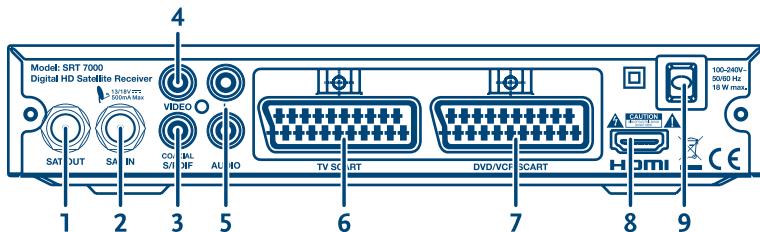


Fig. 2

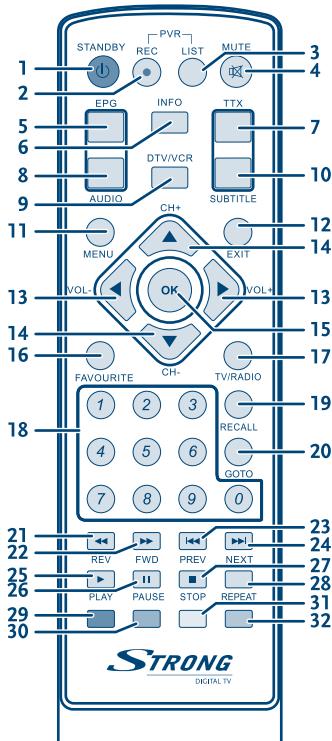


Fig. 3

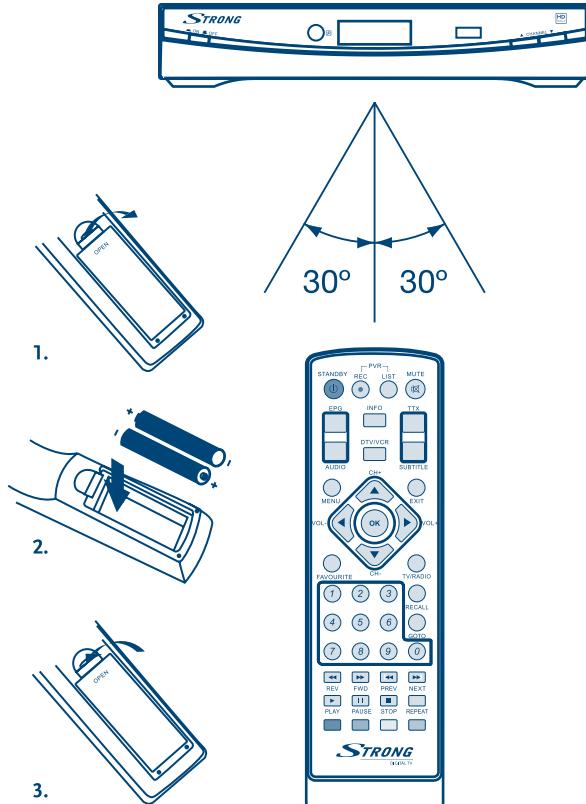


Fig. 4

Fig. 5

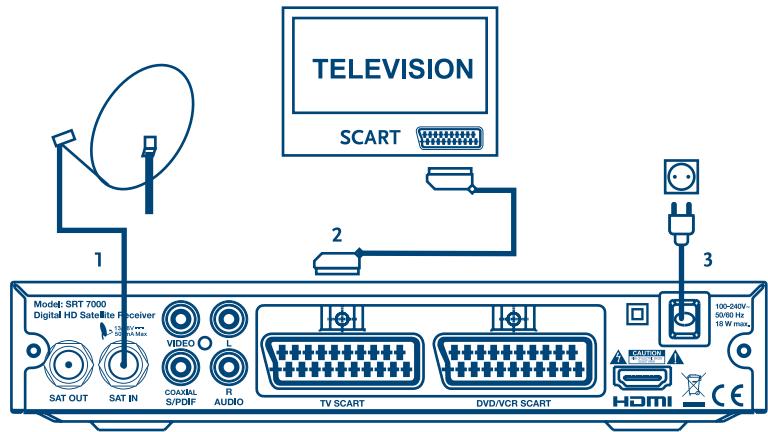


Fig. 6

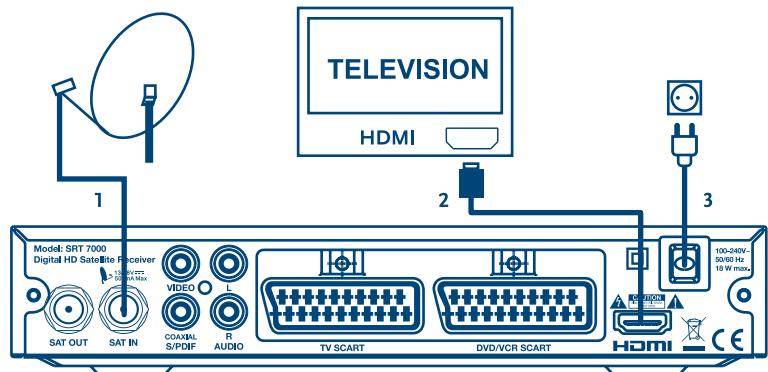


Fig. 7

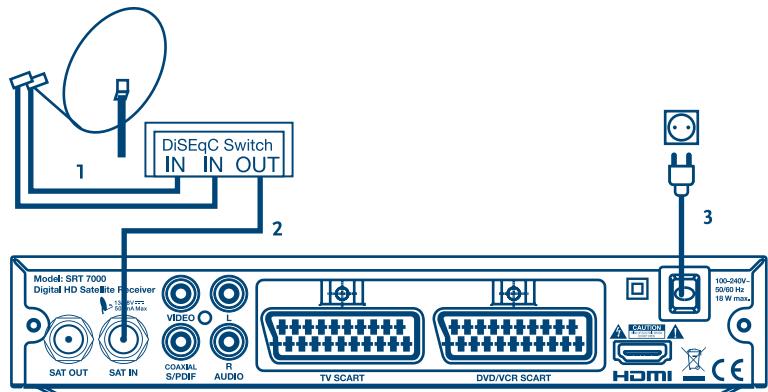


Fig. 8

TABLE OF CONTENTS

1.0 INSTRUCTION	2
1.1 Safety Instructions	2
1.2 Storage	2
1.3 Equipment Set-up	2
1.4 Accessories	3
1.5 Usage of external USB devices	3
2.0 YOUR RECEIVER	3
2.1 PIN code default: 0000	3
2.2 Front panel	3
2.3 Rear panel	3
2.4 Remote Control	4
2.5 Installing the Batteries	5
2.6 Using the Remote Control	5
3.0 CONNECTIONS	5
3.1 Basic connection using a Scart cable	5
3.2 Basic connection using an HDMI cable	5
3.3 Connecting multiple fixed LNB's using a DiSEqC 1.0 switch	5
4.0 FIRST TIME INSTALLATION	6
4.1 Installation	6
5.0 QUICK GUIDE TO USING YOUR RECEIVER	6
6.0 OPERATION	7
6.1 Changing channels	7
6.2 Info Banner	7
6.3 Selection of audio language	7
6.4 Teletext	8
6.5 Subtitles	8
6.6 Changing the Aspect Ratio format	8
6.7 Changing the Resolution format	8
6.8 EPG (Electronic Program Guide)	8
6.9 Favourite channels	8
6.10 Changing between DTV/VCR contents	8
6.11 Instant Recording	8
6.12 Time Shift	9
7.0 MAIN MENU	9
7.1 Program	9
7.2 Picture	11
7.3 Channel Search	12
7.4 Time and Date Settings	14
7.5 Option	15
7.6 System Settings	15
7.7 USB	17
8.0 TROUBLESHOOTING	20
9.0 SPECIFICATIONS	21

STRONG declares that this item complies with the basic requirements and other relevant regulations of
directives CE 2004/108/EC and 73/23/EEC; RoHS 2002/95/EC

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1.0 INSTRUCTION

1.1 Safety Instructions

DO NOT INSTALL YOUR RECEIVER:

In a closed or poorly ventilated cabinet; directly on top of or under any other equipment; on a surface which might obstruct the ventilation slots.

DO NOT EXPOSE THE RECEIVER OR ITS ACCESSORIES:

- To direct sunlight or any other equipment that generates heat; to rain or intense moisture; to intense vibration and to any shock which may cause permanent damage to your receiver or to any magnetic objects, such as loudspeakers, transformers, etc.
- Do not use a damaged power cord. It may cause a fire or an electrical shock. Do not touch a power cord with wet hands. It may cause an electric shock.
- When the receiver is not used for a long period of time, you should unplug the power cord from the wall socket.
- Do not use alcohol or ammonia based liquids to clean the receiver. If you wish, you may clean your receiver with a soft lint-free cloth slightly made damp with a mild soap solution, only after disconnecting from the mains voltage supply. Make sure no foreign objects fall through the ventilation slots because this could cause fire or an electric shock.
- Do not place any objects on top of the receiver because this might prevent proper cooling of the components inside.

Safety Precautions

- Never open the receiver cover. It is dangerous to touch the inside of the receiver due to high voltage currents and possible electrical hazards and your warranty will be void. Refer all maintenance or servicing to suitably qualified personnel.
- When you are connecting cables, be sure that the receiver is disconnected from the mains supply voltage. Wait a few seconds after switching off the receiver before you move the receiver or disconnect any equipment.
- It is a necessity that you only use an approved extension and compatible wiring that is suitable for the electrical power consumption of the installed equipment. Please ensure that the electrical power supply corresponds with the voltage on the electrical identification plate at the back of the receiver.

If the receiver does not operate normally even after strictly following the instructions in this user manual, it is recommended to consult your dealer.

1.2 Storage

Your receiver and its accessories are stored and delivered in a packaging designed to protect against electric shocks and moisture. When unpacking it, make sure that all the parts are included and keep the packaging away from children. For transporting the receiver from one place to another or if you are returning it under warranty conditions, make sure to repack the receiver in its original packaging with its accessories. Failing to comply with such packaging procedures could void your warranty.

1.3 Equipment Set-up

We recommend you consult a professional installer to set up your equipment. Otherwise, please follow the instructions below:

Refer to the user manual of your TV and your antenna.

Make sure that the SCART/HDMI cable and outdoor components are in a good condition and the SCART/HDMI connections are well shielded and from good quality.

This manual provides complete instructions for installing and using this receiver. The following symbols will serve as follow.

⚠ WARNING	Indicates warning information.
💡 TIPS	Indicates any other additional important or helpful information.
MENU	Represents a button on the remote control or the receiver
(Bold Character)	
<i>Move to</i> (<i>Italic Character</i>)	Represents a menu item within a window.

1.4 Accessories

- 1 User Manual
- 1 Remote control unit
- 2x Batteries (AAA type)

💡 NOTE: The batteries should not be recharged, disassembled, electrically short-circuited or be mixed or used with other types of batteries. If rechargeable accumulators instead of batteries are going to be used, we recommend using (e.g. NiMH) types with low self-discharge to ensure long time operation of remote control.

1.5 Usage of external USB devices

It is recommended to use USB 2.0 storage devices. If your device is not compatible to USB 2.0 specifications, recording, playback and other multimedia functions of the receiver would not work properly.

STRONG cannot guarantee compatibility to all types of USB storage devices.

It is advised not to store important information on USB storage devices used with the receiver. Always make backups of data on your USB storage device before using it with this receiver. STRONG will not take responsibility for any loss of information or circumstances caused by loss of information.

Please ensure that either the USB device is already formatted to FAT/FAT32, or format the USB device via your receiver, refer to chapter 7.7 USB for details.

2.0 YOUR RECEIVER

2.1 PIN code default: 0000

2.2 Front panel

Fig. 1

1. **Power button:** To turn ON/OFF the main power supply
2. **Remote control sensor:** Receives the signal from the remote control
3. **LED display:** Shows channel number in operation and time in Standby
4. **Standby indicator:** Shows power state of the receiver
green LED - receiver is turned on
red LED - receiver is in standby mode
5. **USB:** To connect external storage devices
6. **Channel up/down:** To change channels without using the remote control

2.3 Rear panel

Fig. 2

1. **SAT OUT** To loop through the satellite signal to a second receiver
2. **SAT IN** To connect to the LNB of your satellite dish for reception of satellite broadcast signal
3. **S/PDIF** To connect to a digital or home cinema audio amplifier

4. VIDEO (RCA)	To connect to the RCA video input of your TV or VCR using an RCA cable
5. AUDIO (L/R)	To connect to the audio input of your HIFI or television
6. TV SCART	To connect to TV using a SCART cable
7. VCR SCART	To connect to a Video or DVD recorder
8. HDMI	To connect to the HDMI input of your TV using a good quality HDMI cable.
9. Power cord	The receiver requires a mains voltage of 100–240V AC 50–60Hz (auto selecting). Please check the local power conditions before connecting the receiver to the mains supply.

2.4 Remote Control

Fig. 3

1. STANDBY	Turns the receiver ON/Standby
2. REC	Starts recording of the current broadcast to the connected storage device
3. LIST	Displays a list of records available on the connected storage device
4. MUTE	To turn the sound on or off.
5. EPG	Viewing mode: Displays the EPG (Electronic Program Guide) Press once to display channel number/name and now/next info. Press twice to display detailed event info and transponder/signal strength information. Pressing again – back to viewing mode.
7. TTX	To open teletext if available on current channel.
8. AUDIO	Displays the audio selection menu with selections for available languages and audio modes
9. DTV/VCR	Switches to VCR input if it is in DTV state. Switches to DTV if it is in VCR state
10. SUBTITLE	To select subtitles language out of available ones on current channel
11. MENU	To open the main menu in viewing mode or to go one step back in the menu
12. EXIT	Go back one step in the menu/cancellation of current process/exit from main menu to viewing mode
13. ◀▶	Increasing/decreasing of the volume level in viewing mode/ navigating through the menus/ changing values of settings in a menu
14. ▲▼	Switches to the next/previous channel in viewing mode or moving the highlight up/down in the menu
15. OK	Viewing mode: Displays the channel list. MENU: activation of the highlighted item
16. FAVOURITE	To access your favourite channels. Toggles between available favourite groups
17. TV/RADIO	Toggles between TV and Radio mode
18. 0-9	Channel number and numeric value input
19. RECALL	To switch between the last viewed channels.
20. GOTO	In TV mode shows the list of installed satellites for selecting their channel lists. In playback/timeshift mode opens the time banner for selection the moment where to jump.
21. ◀◀/REV	Searches backwards during playback. Each pressing increase the speed (x2 – x32)
22. ▶▶/FWD	Searches forwards during playback. Each pressing increase the speed (x2 – x32)
23. ◀◀ /PREV	Jumps to the previous file during playback
24. ▶▶ /NEXT	Jumps to the next file during playback

25. ► /PLAY	Starts/resumes the playback.
26. II /PAUSE	Starts/resumes timeshift when USB device is connected. Freezes/resumes the playback of Multimedia files.
27. ■ /STOP	Stops playback/timeshift/record
28. REPEAT	Selects different repeat modes during playback
29. RED	Flexible functions in OSD MENU and Teletext
30. GREEN	In viewing mode changes resolution of HDMI output between 1080i, 720p, 576p and 576i; flexible functions in OSD MENU and Teletext.
31. YELLOW	In viewing mode changes aspect ratio and aspect conversion of Video outputs; flexible functions in OSD MENU and Teletext.
32. BLUE	In viewing mode displays Schedule menu for easy setup timers; flexible functions in OSD MENU and Teletext.

2.5 Installing the Batteries

Remove the battery cover from the remote control and put 2xAAA size batteries inside the compartment. The diagram inside the battery compartment shows the correct way to install the batteries.

1. Open the cover
2. Install batteries
3. Close the cover

Fig. 4

NOTE: The batteries should not be recharged, disassembled, electrically short-circuited, be mixed or used with other types of batteries.

2.6 Using the Remote Control

Fig. 5

To use the remote control, point it towards the front of the digital receiver. The remote control has a range of up to 7 metres from the receiver in an appropriate angle.

The remote control will not operate if its path is blocked.

NOTE: Sunlight or very bright light will decrease the sensitivity of the remote control.

3.0 CONNECTIONS

3.1 Basic connection using a Scart cable

Fig. 6

1. Connect the LNB of your satellite antenna to the SAT IN connector of your receiver using a good quality coax cable and suitable 'F-connector' plugs.
2. Connect one end of a good quality Scart cable to the TV SCART connector on your receiver and the other end to the SCART input of your TV.
3. Plug the power cord to a suitable wall outlet.

3.2 Basic connection using an HDMI cable

Fig. 7

1. Connect the LNB of your satellite antenna to the SAT IN connector of your receiver using a good quality coax cable and suitable 'F-connector' plugs.
2. Connect one end of a good quality HDMI cable to the HDMI output on your receiver and the other end to the HDMI input of your TV.
3. Plug the power cord to a suitable wall outlet.

3.3 Connecting multiple fixed LNB's using a DiSEqC 1.0 switch

Fig. 8

1. Connect the LNB's of your fixed antenna to the inputs of a DiSEqC 1.0 switch
2. Connect the output or "to receiver" connector of the DiSEqC 1.0 switch to the SAT IN connector on your receiver.
3. Refer to section 3.1 or 3.2 for TV and mains connections.

4.0 FIRST TIME INSTALLATION

After all connections have been made properly, switch on TV and make sure the receiver is connected to the main power. Then switch on the receiver. If you are using the receiver for the first time or restored to factory default, the *First Installation* menu will appear on your TV screen. Use **◀▶** buttons to select the *OSD Language* of your preference and press **OK** to confirm. An Info page will be displayed. Read the guide info and press the **INFO** button to proceed to the next *Installation* step. You can open and close the info page again by using the **INFO** button.

NOTE: If German is confirmed as language, German preset channels from ASTRA 19.2E will be installed. You can continue with the *Installation* menu to scan and install further channels like described below or quit it by double pressing the **EXIT** button and enjoy the pre-installed channels.

4.1 Installation

Satellite Selection

use **▲▼** to highlight the satellite your dish is aimed at. When using a multi feed antenna with more than 1 LNB, select the satellites your antenna is adjusted for by **OK** button and set the appropriate LNB's in the DiSEqC point. The scan process will be done then on all selected satellites.

Signal Adjust

the signal quality bar on the bottom of the screen allows you to fine tune the alignment of your antenna for optimum reception. Adjust your antenna for maximum possible signal quality. Once the signal cannot be improved anymore, fix the dish on this position and press the **BLUE** button for *Scan*.

Scan Mode

use **▲▼◀▶** to highlight the desired options and press **OK** to start the *Channel Search*. Default settings are recommended.

Channel Search

your receiver will now perform an automatic channel search. Once the process is finished, all found channels will be stored and the receiver will switch to the first found channel. You are now ready to enjoy your new receiver.

NOTE: If no channels were found during the automatic channel scan, the receiver will return to the *First Installation* menu. Please select your language again and refer to chapter 7.3. for further instructions.

5.0 QUICK GUIDE TO USING YOUR RECEIVER

We at STRONG understand that you can't wait to enjoy your new HD receiver. The following quick guide will make you familiar with the basic operation of this device. We do, however, advice you to read the full manual to get the best performance from your STRONG HD receiver.

To turn your receiver ON or to Standby, use the **STANDBY** button on the remote control or the button on the left side of the front panel.

Choose the desired channel with the **▲▼** buttons. Alternatively, you can digit the channel number with the **0~9** buttons on the remote control. Or press **OK** in viewing mode to display the channel list.

The volume can be adjusted with the **◀▶** buttons.

6.0 OPERATION

In viewing mode, several features are available to make watching TV a true pleasure. This paragraph describes these features. Please also read chapter 7.0 to get familiar with the menu of your new receiver.

6.1 Changing channels

Your new receiver is equipped with different ways to change channels.

- via direct access
- via the channel list
- via the ▲▼keys.
- via the RECALL key.

6.1.1 Direct access

To gain direct access to a certain channel, simply input its number with the **0-9** key's on the remote control. Channel numbers can be up to four digits long. Entering a number with less than four digits is possible. Just wait a few seconds and your receiver will switch to the selected channel.

6.1.2 Channel list

Press **OK** in viewing mode to display the channel list. Use **▲▼** to highlight your channel of choice and press **OK** once to select the highlighted channel. The channel list is equipped with a *Find* function to make finding the desired channels easier. While in the channel list, press **RED**. An alphabet banner will now be displayed. Use **▲▼** to select the first letter (or letters) of the desired channel and **OK** to confirm. All channels beginning with the chosen letter(s) will now be displayed. Close the alphabet banner with **EXIT** and select the desired channel in the filtered list.

The following keys are available in the channel list and viewing mode:

RED: Opens an alphabet banner for fast finding the desired channel

TV/RADIO: Toggles between TV and radio channels

GOTO: opens the *Satellite List* for satellite selection

In viewing mode:

FAVOURITE: to switch to one of the available favourite lists.

6.1.3 Using the ▲▼keys

▲ will switch to a higher channel.

▼ will switch a lower channel.

6.1.4 Using the RECALL key

Use **RECALL** button for switching between last viewed channels. Please refer to section 7.6 for more details.

6.2 Info Banner

At any time during viewing mode you can press the **INFO** button to get info about the current channel and now and next program*. Press **INFO** twice to see the detailed info of now and next program and the technical details about the current channel. Press **INFO** again or **EXIT** to close the information.

You can change the duration of info banner displaying in the Option menu. Please refer to section 7.5 for more details.

* Program information is displayed when available. Availability depends from broadcast.

6.3 Selection of audio language

Some channels support a choice of different audio formats and/or languages. To select another audio stream, press **AUDIO** in viewing mode. A list with available audio streams will now be displayed. Use

▲▼ to select the desired stream and confirm with **OK**. With the **◀▶** buttons you could select using of Left, Right or **◀▶** speakers.

6.4 Teletext

Your receiver includes a fully featured Teletext. To access Teletext, press the **TTX** button in viewing mode and use the **0~9** or **▲▼** buttons to select the number of the page you wish to see. Subpages (once loaded and if available) can be selected with the **◀▶** buttons. The coloured buttons of the remote control allow you to jump to selected pages directly, as indicated on the bottom of the teletext screen. Press **TTX** again or **EXIT** to go back to viewing mode.

6.5 Subtitles

Some programs support a choice of different DVB subtitle languages. Press the **SUBTITLE** button in viewing mode to display a list of available subtitle languages. Use **▲▼** to select the desired subtitle and confirm with **OK**.

6.6 Changing the Aspect Ratio format

To change the *Aspect Ratio* format while watching TV, simply press the **YELLOW** button in viewing mode. Each pressing will switch to the next format. Please refer to section 7.2 for more details.

6.7 Changing the Resolution format

To change the *Resolution* format while watching TV, simply press the **GREEN** button in viewing mode. Each pressing will switch to the next format. Please refer to section 7.2 for more details.

6.8 EPG (Electronic Program Guide)

The Electronic Programme Guide is a very useful function that allows you to watch programme schedules and information on screen and to mark programs for recording. Press the **EPG** button to activate this guide (You can enter EPG via Menu too). Use **▲▼◀▶** to select the desired channel and **RED** to move the highlight to the program list. In the program list, use **▲▼** to select or scroll through programs and **◀▶** to display program information for the next/previous days. Use **BLUE** to display detailed information about the selected program. If there is more than one page of information, use **◀▶** to scroll.

 **NOTE:** Availability of EPG data depends on broadcast.

Booking a program from EPG

Select a program as described above. Once the desired program is selected, press **OK**. This will lead you to the Timer (*Schedule*) menu. All details are already filled in for you. Make a choice between *View* and *Record* mode and save the timer with **OK**. To display the list of booked events just press the **BLUE** button being in the channel list part of EPG or in viewing mode. Please refer to section 7.4.1 for more details.

6.9 Favourite channels

Use the **FAVOURITE** button to access your favourite channels and to toggle between available favourite groups. Please refer to section 7.1.1 for details how to create favourite lists.

6.10 Changing between DTV/VCR contents

Switching between DTV/VCR contents in operation mode is realized by using the **DTV/VCR** button. "AV IN" will be displayed on the front LED when receiver is in VCR mode. Press **DTV/VCR** button again to return to the digital TV content. Please refer to *Loop Through* point in section 7.2 for more details.

6.11 Instant Recording

To perform a recording you have to insert USB storage device into USB port of the receiver. Select a channel you would like to record and press **REC** button. The recording will start and at the left upper corner of the screen you will see recording notification with blinking RED dot and record duration. During recording you can change to channels from same transponder only. Only these available channels will be displayed in the channel list. Once switching to a channel different as the recorded one, the number of the recorded channel will be displayed in the recording banner at the left upper corner of the screen. In the channel list the recorded channel will be marked by a record symbol. You can check details of the recording in progress by pressing the **INFO** button.

To stop a recording press **STOP** button on remote control. Another way of doing recordings is to use the Timer – please refer to 7.4.1 *Timer* of this manual.

Average record size (values are approximately, depend from bit rate of actual broadcast):

MPEG2 SD channel – 1 hour take about 2.2 GB space

MPEG4 SD channel – 1 hour take about 1 GB space

MPEG4 HD channel – 1 hour take about 4.5 GB space

Accessing to the recordings: You can access recordings by pressing the **LIST** button on the remote control. The list of recordings can also be accessed through **Menu – USB – Multimedia – Records**. Please, refer to 7.7.1 *Multimedia* for details of available functions.

6.12 Time Shift

The Time Shift function allows you to pause live broadcasts and resume normal watching without missing anything. Make sure there is a compatible USB device connected and there is enough free space on it. Press **II** to freeze the current broadcast. Press **II** again or **►** to start time shifted playback. You can check the Time Shift duration banner and further details by pressing the **INFO** button. For closing banners use **INFO** again or press **EXIT**. Use **GOTO** button to enter the desired time moment you want to jump to. To stop Time Shift press **■** and confirm with **OK** (or press **EXIT** to cancel).

During Time Shift you can use the **◀◀** and **▶▶** buttons to review or forward the playback with x2, x4, x8, x16 and x32 speed. If reviewing reaches the beginning, it will resume to time shifted playing, and if forwarding reaches the end, it will change to record mode.

You can (re)start the Time Shift during recording as well. Just switch to the recorded channel and proceed like explained above.

NOTE: The Time Shift will only work correctly when a fast USB storage device such as an USB 2.0 HDD is connected to the receiver. Distorted picture and / or audio during Time Shift indicate a low USB device speed. STRONG cannot guarantee for USB devices used. Especially when Time Shift is activated at channels with high data rate (High quality SD/HD), STRONG cannot guarantee an accurate Playback of the Time Shift file.

7.0 MAIN MENU

7.1 Program

Press **MENU** and select *Program* using **◀▶** buttons. Press **OK** or **▼** button to enter the *Program* submenu. Press **OK** or **►** button to edit program settings. Press **EXIT** to exit the menu.

7.1.1 Program Edit

To edit your program preferences (lock, skip, favourite, move or delete), please go to *Program Edit* menu. This menu requires a password to access. Enter your password or use the default password ‘0000’ if you did not change it. Use **▲▼◀▶** to highlight a channel, **TV/RADIO** to toggle between TV and radio channel lists and **GOTO** to select the desired satellite (if more than one available).

Set favourite program

Your receiver allows you to store channels in up to 4 favourite lists. Due to the large number of channels available on satellite nowadays, this can be a very useful function.

1. Highlight the preferred program then press the **FAVOURITE** button.
A *Favourite Type* window will pop up on screen. The following 4 groups are available: *Movie*, *News*, *Sport* and *Music*. Please select one (or more) of them. A heart-shaped symbol will appear and the program is marked as a favourite. Press **EXIT** to return to the channel list for further selection.
2. Repeat the previous step to select more favourite programs.
3. To confirm and exit the menu, press **EXIT**

Disable favourite TV or radio program

Repeat the step 1 described above and select *Disable* in the *Favourite Type* window.

View favourite program

1. In normal viewing mode (no menu mode) press the **FAVOURITE** to display a list of favourite programs. Press **FAVOURITE** again to toggle between available favourite lists.
2. Select your favourite program by **▲▼** and press **OK** to switch to it.
3. Now in viewing mode by pressing **▲▼** you can select channels from the chosen favourite group only. If you want to change to the main channel list just press **OK** in viewing mode.

Delete a TV or radio program

1. Select the program you want to delete and press the **BLUE** button. A message will appear. Press **OK** to delete the program or **EXIT** to cancel.
2. Repeat the previous step to delete more programs.

Skip TV or radio program

1. Select the program you would like to skip and press the **GREEN** button.
2. The program will be marked to skip. The receiver will skip this program while zapping between programs in normal viewing mode (in channel list mode the skipped channels remain selectable).
3. Repeat the previous step to skip more programs.
4. To confirm and exit the menu, press **EXIT**.

Disable a skipped TV or Radio program

Press the **GREEN** button on the program marked with the skip symbol.

Move a TV or radio program

1. Select the preferred program then press the **RED** button. A move symbol will appear.
2. Press **▲▼◀▶** to move the program.
3. Press **OK** or **RED** again to confirm the new position.
4. Repeat the above steps to move more channels.

Lock a TV or radio program

You can lock selected programs for restricted view.

1. Select the preferred program then press the **YELLOW** button. The program is now marked as locked.
2. Repeat the previous step to select more programs
3. To confirm and exit the menu, press **EXIT**.

To view the locked program, you need to enter either the default password '0000' or your last set password. We recommend changing of the default password to anyone of your preference. Please refer to chapter 7.6 *System* for more details.

Disable a locked TV or Radio program

Press the **YELLOW** button on the program marked with the lock symbol.

Rename a TV or radio program

1. Select the program you want to rename and press the **INFO** button. A key table appears.
2. In the appeared key table select a character by using the navigation buttons. Press **OK** to choose the character. Once you finish inputting the new name, navigate to "OK" button on screen and press **OK** on the remote control to confirm the new name.
3. To store the changes and exit the menu, press **EXIT**.

7.1.2 EPG (Electronic Program Guide)

Please refer to section 6.8 above.

7.1.3 Sort

Here you can sort your channels in the following orders:

Default	Sort the channels in the original order
By Service Name	Sort the channels in alphabetical order (A-Z)
By Frequency	Sort the channels in frequency order (Low-High)
By Encrypt	Sort the channels from free to scrambled

7.2 Picture

Press **MENU** then select **Picture**. The menu provides options to adjust the video settings. Press **▲▼** to select an option and **◀▶** to adjust the setting. Press **EXIT** to exit the menu.

Aspect Ratio

The default and recommended format is **Auto**. You can also set the display format to further available options like **4:3 Full Screen**, **4:3 Pan&Scan**, **4:3 Letter Box** and **16:9 Wide Screen**.

4:3 Letter Box	the full 16:9 picture will be displayed on your 4:3 TV set with black bars above and below the picture.
4:3 Pan&Scan	the centre of the 16:9 picture will be displayed full-screen on your 4:3 TV
4:3 Full Screen	combination of Letter-box and Pan&Scan.
16:9 Wide Screen	select when use a 16:9 TV set.

• TIP: You can change the video output format directly from viewing mode by pressing the **YELLOW** button on the remote control.

Resolution

If the video does not appear correctly, change the setting. These settings match the most common settings for HDMI.

480i:	for NTSC system TV.
480p:	for NTSC system TV.
576i:	for PAL system TV.
576p:	for PAL system TV.
720p:	for NTSC or PAL system TV.
1080i:	for NTSC or PAL system TV.

• TIP: You can change the video resolution directly from viewing mode by pressing the **GREEN** button on the remote control.

TV Format

Set the standard corresponding to your TV set. Available options are: **Auto**, **PAL** and **NTSC**.

Video Output

This setting is only relevant when the receiver is connected to the TV set via Scart. Select **RGB** for the best picture quality or **CVBS** in case your TV doesn't support **RGB**.

Loop Through (VCR to TV Scart)

This option is only relevant if you have a device (Video-/DVD-recorder) connected to the VCR scart connector of your receiver. It's signal will be looped through to the TV scart output of your receiver. Use this option to set the preferred loop-through mode.

Running mode: The Loop through will be switched off when the receiver is in Standby mode.
Always: The Loop through is always on – in Operation and in Standby mode.

Switching between DTV/VCR contents in Operation mode is realized by using the **DTV/VCR** button on the remote control. "AV IN" will be displayed on the front LED when receiver is in VCR mode. Press **DTV/VCR** button again to return to the digital TV content.

• NOTE: Setting "Always" increases the power consumption in Standby mode. The front panel LED remains green in Standby!

7.3 Channel Search

To access the menu press **MENU** and select *Channel Search*. It contains two options: *Installation* and *DB (Data Base) Management*. Select an option and press **OK** to enter it. Press **EXIT** to exit the menu.

7.3.1 Installation

7.3.1.1 Satellite Selection

Use **▲▼** buttons to highlight the satellite your dish is aimed at. Its antenna settings will be shown at the right side. You can enter the right side with **◀▶** buttons and return to the satellite list with **EXIT**.

7.3.1.2 Configure the antenna settings for selected satellite

LNB Type: Press **◀▶** or **OK** to show the list of LNB Types which is shown as frequencies of local oscillator. You also can enter frequency by User Single, User Dual at bottom of the list. Default is set a Universal LNB (09750/10600) – the most used on the market.

LNB Power: Press **◀▶** to set the LNB power. 13/18V is the setting for a Universal LNB.
22 kHz: Press **◀▶** to switch on or off the 22KHz oscillator signal. *Auto* is the setting for a Universal LNB.

Toneburst: to enable or disable the toneburst switcher if available.
DiSEqC1.0: to select the right port from up to 4 (if available) for the right LNB.

DiSEqC1.1: to select the right port from up to 16 (if available) for the right LNB.

Motor: if using a motor press **◀▶** to select between *DiSEqC1.2* or *GOTOX* depending of motor type. Then Press **OK** to show the menu to set position or **GREEN** for location.

DiSEqC1.2: Move the motor to the right position for locking the signal like explained below.
Move Continue: Press **◀▶** for moving *West / East*. It will keep moving as long as the button is hold pressed. Once pressing will move in 1°step.

Move Step(1): Press **◀▶** for moving *West / East* in 0.3° step.

Store Position: to store the current motor position for selected satellite.

Goto Reference: to go to the reference 0° position.

GOTO X: Set your location coordinates. Main German locations are preinstalled. Press **◀▶** to select. If *Manual* selected use **◀▶**, **UP/DOWN** and **NUMERIC** buttons to enter the right position. By pressing **OK** position gets stored and the motor moves automatically towards selected satellite.

Set Limit for DiSEqC1.2 and GOTO X options:

For *Move Continue*, *Move Step(1)* and *Goto Reference* please see explanation above.

Set West Limit: to store the current motor position as West limit.

Set East Limit: to store the current motor position as East limit.

Disable Limit: to disable West and East limits

7.3.1.3 Channel Scan

Automatic Scan

Single Satellite Scan: Press **BLUE** for *Scan*. A window with scanning settings will be displayed.

Scan Mode: Press **◀▶** to select *Default*, *Blind Scan* or *NetWork*.

Default: All in the memory stored transponders will be scanned.

Blind Scan: Slow scan in 2 MHz step. It first scans the whole frequency band to get the transponders which can be locked. After gathering all transponders, it scans the transponders one by one to get the programs.

NetWork: Network search will be performed – when a Network information is broadcasted new switched transponders will be found and stored.

Crypted: Press **◀▶** to select *All Channels* (scrambled and free) or *FTA Channels* (free to air);

Service Type: Press **◀▶** to select *ALL*, *DTV* or *Radio*.

After configuring press **OK** or **BLUE** again to start scanning with the selected settings. Your receiver will now perform an automatic channel search with scan progress shown on screen. During channel search you can skip Transponders by pressing **MENU** button, or quit the scan process by **EXIT**. Once the process is finished, all found channels will be stored and the receiver will switch to the first found channel.

Multi-Satellites Scan: When using a multi feed antenna with more than 1 LNB, select the satellites your antenna is adjusted for by **OK** button. The selected satellites will be marked by the symbol “✓”. Set in the DiSEqC point the appropriate LNB numbers and press **BLUE** for **Scan**. A window with scanning settings will be displayed. After configuring the settings like explained in Single Satellite Scan above, press **OK** or **BLUE** again to start Multi-Scan on all selected satellites.

Scanning by transponder (Manual Scan)

Press **GOTO** for displaying the transponder list of the focused satellite. By pressing **GOTO** again you switch back to the satellites list.

Single Transponder Scan: Use **▲▼** buttons to highlight the transponder your wish to scan. Press **BLUE** for **Scan**. A window with scanning settings will be displayed. After configuring the settings (explained in 7.3.1.3 above), press **OK** or **BLUE** again to start scanning on focused transponder. Once the scan process is finished, all found channels will be stored and the receiver will switch to the first found channel.

Multi-Transponder Scan: Select the transponders you want to scan by **OK** button. The selected transponders will be marked by the symbol “✓”. Press **BLUE** for **Scan**. A window with scanning settings will be displayed. After configuring the settings like explained in 7.3.1.2 above, press **OK** or **BLUE** again to start Multi-Scan on all selected transponders.

7.3.1.4 Satellite Edit options

Add satellites: Press **RED** to add a new satellite. In new opened menu enter the satellite's name and position by using Navigation and Numeric buttons. In the appeared key table select a character by using the navigation buttons. Press **OK** to choose the character. Once you finish inputting the new name, navigate to “OK” button on screen and press **OK** on the remote control to confirm the new name.

Save the settings with **OK** or cancel by **EXIT**.

Edit satellites: Press **GREEN** to edit the focused satellite. For changing settings see explanation above. Confirm changes with **OK** or cancel by **EXIT**.

Delete satellite: Press **YELLOW** to delete the focused satellite. Press **OK** to confirm deleting or **EXIT** to cancel it.

7.3.1.5 Transponder Edit options

Add transponder: Press **RED** to add a new transponder. In new opened menu enter the transponder's data by using Navigation and Numeric buttons. Confirm the settings with **OK** or cancel by **EXIT**. An existing TP cannot be stored again under the same satellite.

Edit transponder: Press **GREEN** to edit the focused transponder. In new opened menu enter the new transponder's data by using Navigation and Numeric buttons. Confirm changes with **OK** or cancel by **EXIT**.

Delete transponder: Press **YELLOW** to delete the focused transponder. Press **OK** to confirm deleting or **EXIT** to cancel it.

7.3.2 DB Management (save your channel settings on an USB-Storage-Device and load it anytime back)

This menu allows you to up/download the channel Data Base of your receiver from/to an USB-Device. This very convenient feature enables you to save your personal settings like Channel-, Favourite-, Sat- and TP-lists on an USB Storage Device and upload them later back to the receiver. This could be done e.g. after unintentional changes or Factory Reset. In such a case just skip the whole *First Installation* and new adjusting procedures by pressing **EXIT** in *First Installation* and select the DB management menu.

Connect the USB Storage Device to your receiver and select one of the options:

7.3.2.1 Load from USB

Press **OK** for displaying the list with available DB files (if any stored before). The DB files „*STRONG_S2_Database_TT_MM.DBM*“ are shown with their built date (Day and Month). Select the DB file you want to download and confirm it with **OK**. If DB is successfully downloaded (message appears on screen) receiver will switch automatically to the first stored channel and show its content in the background. Press **EXIT** until OSD menu disappears.

7.3.2.2 Backup to USB

Press **OK** to make a backup of the data base. A DBM-File „*STRONG_S2_Database_TT_MM.DBM*“, shown with the actual Date (Day and Month), will be created on the USB-Device. If DB is successfully uploaded a message saying this will be displayed on screen. Press **EXIT** until OSD menu disappears.

7.4 Time and Date Settings

Press **MENU** and select *Time*. The menu provides options to adjust the time and date settings and allows you to setup scheduled recordings of programs in *Timer* submenu.

Press **▲▼** to select an option and **◀▶** to adjust the setting. Press **EXIT** to exit the menu.

<i>Time Auto</i>	Select On for automatically time and date update from live signal or Off for manual entering them.
<i>Time Zone</i>	Select the Time Zone Offset.
<i>Summer Time</i>	Select On or Off depending on the year's period.
<i>Date</i>	Enter the Date when Time Auto is set to Off .
<i>Time</i>	Enter the Time when Time Auto is set to Off .

7.4.1 Timer (Schedule)

In this menu you can setup the schedule for automatic recording or switching to the defined channels at a particular date/time. Timer menu can be direct entered out from viewing mode just by pressing the **BLUE** button.

Add: Press **RED** button to add a new booking. In the appearing dialog select the desired channel type and number, the starting date and time, end time, repeat cycle (once, daily or weekly) and mode (view or record). Tip: For selecting the number of desired channel you can use the **◀▶** or Numeric buttons but also the fast channel Find option (Red button). It allows you to enter the right channel number just by selecting the first letters of the channel's name in the new opened table.

Once you set all parameters, press **OK** to store your booking.

Edit: Press **GREEN** button to edit an existing booking.

Delete: Press **BLUE** button to delete a booking from the list. Press **OK** to confirm deleting or **EXIT** to cancel it.

TIP: If you have scheduled recordings, make sure to have an external storage device connected to the receiver. Check periodically, if free space is available on the storage device for future recordings.

NOTE: You can set Timers for Programs directly from EPG. Please refer to section 6.8 for more details.

7.5 Option

Press **MENU** and select *Option*. In this menu you can adjust the *OSD Language*, *Subtitle Language*, *Audio Language*, *Digital Audio mode* and *Banner Time*.

Select an option and press **◀▶** to adjust the setting.

Press **EXIT** to exit the menu.

OSD Language

Select the preferred language of On Screen Display.

Subtitle Language

Select the preferred subtitle language.

Audio Language

Select the preferred audio language for watching TV channels.

If the language is not available, the default program language will be used

Digital Audio

Select digital audio output mode (relevant only if an audio amplifier is connected to the S/PDIF output)

PCM – audio from any format will be converted to PCM format

RAW – audio from receiver will be send in original format

OFF – digital audio output disabled

Banner Time

Set the duration of info banner displaying. Possible settings are: 1~10 seconds.

7.6 System Settings

Press **MENU** and select *System*. The menu provides options to adjust the system settings.

Select an option and press **◀▶** to adjust the setting. Press **EXIT** to exit the menu.

SET PASSWORD

Set or change the password for locked programs and menu access. Enter your old password or the default password '0000'. You will then be asked to enter your new password. To confirm re-enter your new password. Once it is confirmed, press **EXIT** to exit the menu.

Restore Factory Default

Reset your Set Top Box to the Default Factory Settings.

In Main Menu select *Restore Factory Default* and press **OK** or **▶** to select. Enter your password or the default password '0000' and press **OK** to confirm. This option will delete all your channels and settings. The receiver will reboot and start with *First Installation* menu.

⚠ WARNING: A factory reset will permanently delete all your personal settings, timers and stored channels. Please consider this before you perform a factory reset.

Information

It shows model, software and hardware information.

Recall List

Enable or disable *Recall list* function, which supports multi-recall-channel switching. If the status is set *ON* then by pressing **RECALL** button a list of all previous selected channels will be displayed for new selection. If the status is set *OFF* then by pressing **RECALL** button receiver will switch to the previous selected channel.

Software update

In Main Menu select *Software Update* and press **OK** or **►** to select. There are two software update options available:

SW update By OTA

The OTA (Over the Air) function allows you to search for software updates available on satellite. Please ask your local STRONG dealer or visit our website <http://www.strong.tv> for according information.

In the OTA menu all necessary STRONG OTA settings (*Satellite, Frequency, Symbol rate and Polarization*) are already set per default but could also be changed manually. Press **OK** to initiate the update process. An attention banner will now be displayed. Press **OK** to start the update (or **EXIT** to cancel it). Follow the instructions displayed on screen. The software searching and update process could take up to 20 minutes depending on the data volume in stream. After process is finished (also if no Update was found) receiver will reboot and start with the last shown channel.

⚠ WARNING: NEVER power off the receiver or pull the mains plug during the software upgrade process. Doing so might cause irreparable damage to your receiver and will void your warranty.

SW update by USB

Download the required update file for your receiver model from our website <http://www.strong.tv> support page or contact your local dealer.

Unzip file, if necessary, and copy it to root folder of your USB storage device.

Connect USB storage device to the USB port of the receiver. Press **MENU** and select *Software Update By USB*. Press **OK** to enter the software file list. Select the file with software image and press **OK** to initiate the software update. An attention banner will now be displayed. Press **OK** to start the update (or **EXIT** to cancel it). Follow the instructions displayed on screen. Update process will take some time. Once update is completed the receiver will display message "Software Upgrade Complete. Please Restart". Unplug the receiver from the mains and plug it in again. Your updated receiver will start with the last shown channel.

⚠ WARNING: NEVER power off the receiver or remove the USB device during the software update process. Doing so might cause irreparable damage to your receiver and will void your warranty.

Auto Standby

Auto Standby is a new, power saving feature that helps you with reducing power consumption. It will switch off the receiver when no command is given for the defined period of time. It's set per default to 180 Minutes. With the **◀▶** buttons you can select between different time intervals or **Off** for disabling the feature. In the **0000** Mode you can enter the desired Auto Standby time by using the **0-9** buttons.

💡 NOTE: If there are Timers running, the Auto Standby function will be disabled for the booked time, so that the records can be full finished. But in case of Instant Recording (**REC** button) the Auto Standby function has priority.

7.7 USB

Press **MENU** and select **USB**. The menu provides *Multimedia* feature to playback *Music*, *Photo*, *Movie* and with the receiver Recorded files. Supported are different file formats listed below. In this menu you also can see information about the total and free space of the connected USB device, make video and photo configurations and format the USB device into the receiver accepted format. The unit supports USB devices with FAT and FAT32 format. Make sure your USB device is appropriate formatted; refer to point **7.7.4 Recording Configure** for more details.

- **NOTE:** STRONG cannot guarantee compatibility (operation and/or bus power) with all USB mass storage devices and assumes no responsibility for any loss of data that may occur when connected to this unit.
- With large amounts of data, it may take longer for the system to read the contents of a USB device.
- Some USB devices may not be properly recognized. Even when they are in a supported format, some files may not play or display depending on the content.

7.7.1 Multimedia

If there is no USB device plugged in, a warning message "No USB Device is Found" will be displayed.

When an USB device is detected you can select between *Music*, *Photo*, *Movie* or *Records* in this menu.

Select one of them, press **OK** to enter the file browser and select the file you wish to be played.

Music – supported file formats are MP3 and WMA.

Photo – supported file formats are JPG and BMP

Movie – supported video files in various formats (MPG, MPEG, TS, VOB, MP4, AVI,...)*

Records – displays list of recordings.

Music

Select the desired music file and press **OK** to start playback.

During playback, the following functions are available:

PLAY (▶) or **OK**: starts playback of the selected file.

II to pause/resume playback and **■** to stop it.

◀◀ and **▶▶**: to review or forward the playback with x2, x4, x8, x16 and x32 speed. If reviewing reaches the beginning, it will resume the playback of the current file, and if forwarding reaches the end, the playback of the next file will start.

GOTO: opens a counter banner for entering the desired time moment you want to jump to. Use the **0~9** buttons for entering the time and **OK** to confirm.

◀◀ and **▶▶**: starts playback of the previous/next file.

REPEAT: Press once for single file repeat, twice to repeat all files or triple for random playing. The symbol for selected repeat mode will appear at the top of the screen. Press once again to return to common play mode.

RECALL: goes to the up folder.

EXIT: to get back to the *Multimedia* menu. Press **EXIT** once more if want to leave the *Multimedia* menu.

- **TIP:** Playback of music will continue as long as the *Multimedia* menu is active. This allows you to listen to music while watching photos. Just exit of the *Music* submenu and select desired slide mode in the *Photo* submenu like explained below.

Photo

Your receiver allows you to watch a slide show with all photo's available in the chosen folder. To use the slide show choose a folder with photo files. Press **PLAY (►)** to start and **STOP (■)** or **EXIT** to stop the slide show. See the different *Photo Configure* options explained in point 7.7.2 below.

In the *Photo* mode there are following functions available:

OK: opens selected photo in full screen format.

PLAY (►): starts slide show; **II:** to pause/resume slide show.

■ or EXIT: to close full screen format or to stop slide show and return to the folder view.

INFO: to open/close the photo details banner while in full screen or slide show mode.

RED: to zoom the displayed photo (use **▲▼◀▶** to navigate to the desired part of the zoomed picture).

GREEN: to turn the photo counterclockwise.

YELLOW: to turn the photo clockwise.

GOTO: opens a Grid view (to go back press **EXIT**)

RECALL: goes to the up folder.

◀ and ▶: opens the previous/next photo.

REPEAT: functionality is explained in *Music* section above. When you enter the *Photo* menu while listening to the music, then the music playback will be automatically switched to repeat all mode. You can now enjoy your pictures while listening to the music and use in slide show mode all the REPEAT functions for photos playback.

EXIT: to get back to the *Multimedia* menu. Press **EXIT** once more if want to leave the *Multimedia* menu.

Playback of Movie and Records

In the *Movie* menu you have to navigate to a movie file. In the *Records* menu you have to select the folder "MYRECORD" where recordings are stored. You can directly access recordings out of TV mode just by pressing the **LIST** button.

Select the file and press **OK** to start the playback in preview mode. Use the **RED** button to switch between preview and full screen. Use **RECALL** to go to the up folder.

During playback you can use the playback control buttons, such as **PAUSE (II)**, **PLAY (►)**, **STOP (■)**, **REV (◀◀)**, **FWD (▶▶)**, **PREV (◀)** and **NEXT (▶)**. You can check the file details by pressing the **INFO** button in full screen mode. For closing banner use **INFO** again or press **EXIT**. Use the **GOTO** button to enter with the **0~9** buttons the desired time moment you want to jump to and press **OK** to confirm. With the **◀◀** and **▶▶** buttons you can review or forward the playback with x2, x4, x8, x16 and x32 speed. If reviewing reaches the beginning, it will resume the playback of the current file, and if forwarding reaches the end, the playback of the next file will start. With the **◀** and **▶** buttons you can jump to the previous/next video file. In the *Movie* mode (not in *Records*) is also possible to use the **REPEAT** button (its functionality is explained in *Music* section above).

Additionally in the *Records* Menu you can Delete or Rename files.

To *Delete* a recording(s) – select the desired file(s) by pressing the **YELLOW** button (pressing again removes the delete mark) and confirm with **OK**. In the appeared message confirm the deletion with **OK** or press **EXIT** to cancel. It is possible to delete files in other folders or even whole folders as well.

To *Rename* a recording – you only can rename files, which were recorded with the receiver. Select the desired file and press **GREEN** button. In the appeared key table select a character by using the navigation buttons. Press **OK** to choose the character. Once you finish inputting the new name, navigate to "OK" button on screen and press **OK** on the remote control to store the new name. The file extension (.rec) should not be reentered, as it will be added automatically.

* STRONG cannot guarantee the playback of video files although extensions are listed here, as the correct playback depends on codecs used, data bit rate and resolution as well. Please consult the STRONG Hotline in your country to get more details.

7.7.2 Photo Configure

Slide Time: You can adjust slide show interval to 1~8 seconds.

Slide Mode: You can select one of the 60 slide show effects or *Random* (mixed effects).

Aspect Ratio: **Keep** - displays the picture as its original aspect
Discard - displays the picture in full screen mode.

7.7.3 Movie Subtitle

This subtitle function is only relevant in *Movie* menu for movies, which contains subtitle files in .srt or .txt format. In the *Records* menu the subtitles (if available) get displayed in their original format, which cannot be changed.

During playback press **SUBTITLE** to select the desired language and confirm with **OK**. While playing *Records* files, you also can press **TTX** to select teletext subtitle from the appropriate page if available.

During playback of *Movie* files you can press **SUBTITLE** twice to change the below described subtitle settings:

Subtitle Specific: Select the subtitle size in between: *Small*, *Normal* or *Big*.

Subtitle BG: Select the subtitle background in between *White*, *Transparent*, *Gray* or *Yellow-Green*.

Subtitle Font Color: Select the subtitle font color in between: *Red*, *Blue*, *Green*, *White* or *Black*.

7.7.4 Recording Configure

Record Device:

If you have multiple partitions on your storage device, select one of them as default partition for recording. Here you also can see information about the format and the total and free memory space of the Partition/Device.

Format:

⚠ WARNING: Format function will delete all records, data and information from your USB device or selected partition. STRONG will not take any responsibility for damaged or lost data on the USB device.

If you have multiple partitions on your storage device, select the partition you would like to format and press **OK** to continue. An attention banner will now be displayed. Press **OK** to start formatting (or **EXIT** to cancel it). Format procedure will take some time, depends from size of storage device used. At the end of process “Formatting is complete” message will appear. Press **EXIT** to exit the menu.

8.0 TROUBLESHOOTING

There may be various reasons for abnormal operation of the receiver. Please check the receiver according to the procedures shown below. If the receiver does not work properly after checking it, please contact your local Serviceline or STRONG dealer. Alternatively you can send a support mail via our website: www.strong.tv. NEVER open or disassemble your receiver. This may cause a dangerous situation and will void the warranty.

PROBLEM	POSSIBLE CAUSE	WHAT TO DO
Stand-by indicator does not light up	Mains lead unplugged / multipoint connector switched off.	Check mains lead / switch multipoint connector on.
	Front panel switch is in OFF position.	Set front panel switch to ON position.
No picture	The receiver can't receive the signal.	Check the antenna cable, replace the cable, or connect the cable to the receiver tightly.
	Incorrect values of some tuner parameters.	Set the values of tuner parameters correctly in menu <i>Installation</i> .
	Wrong direction of the dish.	Check the signal strength with a spectrum analyzer and adjust your dish correctly.
No picture or sound on TV	Input is not selected on your TV.	Switch to correct TV input.
	TV or VCR is not connected to main. Bad cable connection.	Check mains lead. Firmly plug in cables between receiver and TV.
	Audio muting.	Press the MUTE button.
	TV power off.	Turn TV on.
Scrambled channel message	Channel is scrambled.	Select alternative channel.
No response to remote control	Receiver off.	Plug in and turn on plug.
	Handset not aimed correctly.	Aim handset at IR sensor.
	IR sensor obstructed.	Check for obstructions.
	Hand set batteries exhausted.	Replace handset batteries.
Password forgotten		Contact local Service Hotline or send email to our Support via www.strong.tv
The external USB HDD does not start.	Power consumption is too high.	Connect an extra power supply adapter to your USB HDD device.
Record not performed	The USB storage device is not connected.	Make sure a storage device is connected.
	There is no free space on the storage device.	Delete some data from the storage device and try again.
	The USB storage device format is not supported.	Make sure your USB storage device is formatted in FAT or FAT32 file system. Refer to 7.7.4 Recording Configure>Format.
The receiver switches to STBY automatically.	Auto Standby function is activated and reached the adjusted time (default 3h).	In the menu System>Auto Standby you can adjust the Auto Power Down time or disable it.

9.0 SPECIFICATIONS

Demodulator

Demodulation:	QPSK, 8PSK
Input symbol rate:	DVB-S QPSK: 1 ~ 45 Ms/s DVB-S2 8PSK/QPSK: 10~30 Ms/s
FEC decoder:	Auto, 1/2, 2/3, 3/4, 5/6, 7/8 in DVB-S mode 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 in DVB-S2 mode 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 in 8PSK mode

Video Decoder

Profile level:	MPEG-2 MP@ML, MP@HL, MPEG-4 H.264/AVC
Input rate:	Max. 20 Mbit/s
Aspect ratio:	4:3 and 16:9, Pan & Scan, Letterbox, Auto
Frame Rate:	24 Hz, 25 Hz, 30 Hz (1080i); 50 Hz, 60 Hz (720p); 480p/480i (60 Hz), 576i/576p (50 Hz)
Video resolution:	576i, 576p, 720p, 1080i

Audio Decoder

Audio decoding:	MPEG-1 Layer 1 & 2, AC3 Downmix
Audio mode:	Mono L/R, Stereo, AC3
Sampling rate:	32, 44.1, 48 kHz

Tuner

Type1 F Type, IEC169-24, Female	
Input frequency range:	950 ~ 2150 MHz
RF impedance:	75 Ohm unbalanced
Signal level:	-65 to -25 dBm
LNB power:	13/18 V DC (+/- 5%), max. 0.5 A, overload protected
DiSEqC versions:	1.0, 1.1, 1.2, GOTO X, Tone burst

System & Memory

Main processor:	MSTAR7828
Flash memory:	8 MBytes
System memory:	128 MBytes

Multimedia

Video playback –	supported in various formats (MPG, MPEG, TS, VOB, MP4, AVI...)*
Audio playback –	MP3, WMA formats
Picture view –	JPG, BMP formats

* STRONG cannot guarantee the playback of video files although extensions are listed here, as it depends on codec used, data bit rate and resolution.

Connectors

SAT IN	
SAT OUT	
HDMI (V/A -Output) Type A -Version: 1.0	
TV SCART (RGB, CVBS, Audio L/R output with volume control)	
VCR SCART (CVBS, Audio L/R)	
RCA outputs (Audio L/R and CVBS video)	
S/PDIF Dolby Digital Out (Coaxial)	
USB 2.0, Type A Connector	

General Data

Input voltage range:	100 – 240 V AC 50/60 Hz
Power consumption:	max. 18 W, typ. 8.5 W (without external storage device)
Power consumption in standby:	max. 1 W (without external storage device)
Operating temperature:	0 ~ +40 °C
Storage temperature:	-10 ~ +50 °C
Operating humidity range:	10 ~ 85 % RH, Non-condensing
Size (W x D x H) in mm:	220 x 170 x 45
Weight:	0.68 kg